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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/688,368	10/17/2003	Reza Tayrani	PD-02W135	2242
7590	01/14/2005		EXAMINER	
Leonard A. Alkov, Esq. Raytheon Company (E4/N119) P.O. Box 902 El Segundo, CA 90245-0902			CHOE, HENRY	
			ART UNIT	PAPER NUMBER
			2817	

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/688,368

Applicant(s)

TAYRANI ET AL.

Examiner

Henry K Choe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,12,13,28 and 29 is/are rejected.
- 7) ☒ Claim(s) 3-11 and 14-27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 13 is rejected under 35 U.S.C. 102(b) as being anticipated by Dennis, Jr (Fig. 1).

Dennis, Jr (Fig.1) discloses an amplifier circuit comprising a broadband balun (20) which provides two channels (22, 23) from a single input channel (21), and a switch (10, 12) which is connected in series to each of the two channels (22, 23).

Claims 1, 12 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Shima (Fig. 1A).

Regarding claim 1, Shima (Fig. 1A) discloses an amplifier circuit comprising means (4, 5) which amplifies an input signal (S1) via a high speed switch (4, 5) and providing an amplified signal (S4), and means (6) which filters the amplified signal (S4) via common mode rejection and providing an output signal (output of 6).

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Regarding claims 12 and 29, Shima (Fig. 1A) discloses an amplifier circuit comprising first means (2) which separates an input signal (S1) into plural intermediate signals (S2, S3), second means (4, 5) which amplifies the plural intermediate signals (S2, S3) via two (4, 5) high speed switches and providing plural amplified signals (output of 4, output of 5), and third means (6) which employs common mode rejection to filter the plural amplified signals (output of 4, output of 5).

Claim 28 is rejected under 35 U.S.C. 102(e) as being anticipated by Chawla et al (Fig. 5).

Chawla et al (Fig. 5) discloses an amplifier circuit comprising an input circuit (310) having a broadband slotline input balun and providing two channels (upper output of 310, lower output of 310) from a single input (RF IN), a switch (200) which is connected in series to each of the two channels (upper output of 310, lower output of 310), and an output circuit (330) having a broadband output slotline balun and providing a single output channel (output of 330) from the two channels (upper input of 330, lower input of 330).

Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Masuda et al (Fig. 1).

Regarding claim 1, Masuda et al (Fig. 1) discloses an amplifier circuit comprising means (3, 16) which amplifies an input signal (S1) via a high speed switch (3, 16) and providing an amplified signal (output of 3, output of 16), and means (6, 17, 18) which filters the amplified signal (output of 3, output of 16) via

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common mode rejection and providing an output signal (output of 6, output of 17).

Regarding claim 2, the means (6, 17, 18) for filtering includes first means (18) for separating an input signal (S1) into plural intermediate signals (S2, S9) and wherein the means (3, 16) for amplifying includes second means (16) for amplifying the plural intermediate signals (S2, S9) via one high speed switch (16) and providing plural amplified signals (output of 3, output of 16) and the means (6, 17, 18) for filtering further includes third means (17) for employing common mode rejection to filter the plural amplified signals (output of 3, output of 16).

### ***Allowable Subject Matter***

Claims 3-11 and 14-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Patent numbers (3,394,227; 3,854,100) are the switching amplifiers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry Choe whose telephone number is (571) 272-1760.

#968



**HENRY CHOE  
PRIMARY EXAMINER**